

NOTE ON SYNCHRONOUS LIGATION OF BOTH INTERNAL JUGULAR VEINS.

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MRS. J. C. B., of Columbus, Ohio; aged thirty years; married four years. Number of children, two; younger, two months; has had tuberculosis of the glands of the neck for a number of years; was operated on by a Michigan surgeon five years ago, a small tumor being removed from the left side of the neck. A year later was operated upon again by a Canadian surgeon, who removed a small tumor from the same side. In February, 1899, was operated upon by a prominent Omaha surgeon, who removed a large amount of glandular tissue from each side. The patient states that what was removed would have filled a quart cup. In August of that year was operated upon again by the same surgeon, who removed small growths from each side. In March, 1901, he operated again upon both sides, removing, as the patient states, another quart of tissue.

She consulted me in November, 1901. At that time there were large masses upon each side. The patient was far advanced in pregnancy, and it seemed undesirable to make as serious an operation as would be necessary to effect complete removal. Accordingly, a few especially painful nodules were removed under cocaine. She was confined at full term in Canada, and returned here for operation in April, 1902. At that time the masses were materially larger than in November. They extended far beyond the line of the jaws and involved much more than the field of previous operations. In addition to the lateral masses there were two glands in the median line above the hyoid bone. On the right side the mass was almost immovable, but a good deal of motion could be obtained on the left side, and the glands under the chin were freely movable. Both parotids were in part involved.

Patient was operated on at Grant Hospital, April 11. Ether was given by Dr. C. M. Shepard, and my assistants were Dr. S. J. Goodman and student Bowen. As the mass on the right side presented the greater difficulties, this was first attacked. A free incision was made, followed by a careful dissection of the entire region. With difficulty the affected parts were separated from the healthy tissue and lifted up from the deeper structures. It was then found that the mass was closely adherent to the deep cervical vessels. The diseased tissue was carefully separated with fingers and sponge, aided as needed by scissors, but suddenly the internal jugular vein was opened. This accident had been feared, and hæmorrhage was instantly checked by sponge pressure and the enucleation completed. Examination then showed quite a large opening in the vein. A ligature was therefore applied above and below and the cavity packed for the control of the oozing. The glands under the chin were next removed without difficulty and the incision closed without drainage. Careful examination of the tissue on the left side led to the hope that the operation here would be much easier than it had been on the right. The patient had complained bitterly of all the glands being exceedingly painful, and her last words had been an expression of hope that all could be removed. The same procedure was therefore instituted on this side as on the other, and after a careful dissection the entire mass was finally separated, except at its inner side. This surface was separated without any special difficulty until a mass about the size of a hen's egg was encountered, which extended deeply down into the neck and was attached, as on the opposite side, to the great vessels. Separation was here proceeded with with the utmost caution, but in spite of every care the jugular was opened. At the same instant that it was opened the patient made an inspiratory effort, and the hissing of the air was heard as it was drawn into the vein. This was but for a single instant, however, as a sponge was at once pressed upon the opening. We then waited for a few moments to see if any ill effect would follow the inspiration of the air or the interference with the return of blood through the vein. No disturbance of any kind could be noticed, but pulse and respiration continued precisely as before. The rest of the mass was, therefore, enucleated and a double ligature applied to the vein. Both cavities were of enormous size, and were lightly packed with gauze, with suture of the

incisions to the lower angles. Patient bore the operation remarkably well, and was put to bed in excellent condition.

I personally superintended the dressing on the third day, as I wished to remove the gauze packing. Patient was feeling well, and said that she could sit up to have the dressings applied. Just at the completion of the dressing she said that she felt she must lie down, and I at once eased her back onto her pillows. She was immediately seized with a general but not very violent convulsion, which probably lasted twenty seconds. Consciousness was recovered immediately, and, with a smile, she assured me that she was all right. Recovery was uneventful, and she left the hospital in two weeks. The only evidence of any interference with the circulation has been a little puffiness of the face.

While in my previous experience I have in several instances been obliged to ligate one internal jugular, I have never before had occasion to ligate both. Indeed, the necessity for such a synchronous ligation must be exceedingly rare. In the literature at my disposal I have not been able to find a report of any such ligation. That profound central disturbances were not produced by such an interference with the cerebral circulation was to me a matter of considerable surprise. The vessels were of the ordinary size; but I suspect the long-continued pressure of the surrounding tissues had so far interfered with the return of blood through these channels that a fairly satisfactory collateral circulation had already been established.